

Patent Claims

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1. A voltage intermediate circuit converter having a 12-pulse input converter (2) which has two converter elements (4, 6), having a voltage intermediate circuit (12) which has two capacitors (8, 10) which are connected electrically in series, and having a machine-side three-point pulse-controlled converter (14), with the two converter elements (4, 6) of the input converter (12) being electrically conductively connected on the DC-side to a respective capacitor (8, 10) in the voltage intermediate circuit (12), characterized in that the converter elements (4, 6) of the input converter (12) have a respective self-commutated pulse-controlled converter (4₁, 6₁).
2. The voltage intermediate circuit converter as claimed in claim 1, characterized in that the self-commutated pulse-controlled converters (4₁, 6₁) are each three-point pulse-controlled converters.
3. The voltage intermediate circuit converter as claimed in claims 1 and 2, characterized in that each capacitor (8, 10) in the voltage intermediate circuit (12) is split such that one capacitor (8₁, 10₁) is associated with the machine-side three-point pulse-controlled converter (14), and two capacitors (8₂, 8₃; 10₂, 10₃) are associated with a pulse-controlled converter (4₁, 6₁) in the input converter (12).

4. The voltage intermediate circuit converter as claimed
in one of the abovementioned claims.

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~~characterized~~

5 in that the number of series-connected active
converter devices (T1, T2, T3, T4) in the self-
commutated pulse-controlled converters (4₁, 6₁) in
the input converter (12) is equal to the number of
series-connected active converter devices (T1, T2,
T3, T4) in the machine-side three-point pulse-
controlled converter (14).

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5. The voltage intermediate circuit converter as claimed
in one of claims 1 to 3,
characterized
in that the number of series-connected active
converter devices (T1, T2, T3, T4) in the self-
commutated pulse-controlled converters (4₁, 6₁) in
the input converter (12) is one less than the number
of series-connected active converter devices (T1, T2,
T3, T4) in the machine-side three-point pulse-
controlled converter (14).
6. The voltage intermediate circuit converter as claimed
in one of the abovementioned claims,
characterized
in that high-voltage insulated gate bipolar
transistors are provided as active converter devices
(T1, T2, T2, T4) of the self-commutated pulse-
controlled converters (4₁, 6₁) in the input converter
(12) and in the machine-side three-point pulse-
controlled converter (14).

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